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June 17, 2004

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W., Room TW-A325
Washington, DC 20554

Re: Ex Parte Submission
WT Docket No. 03-103

Dear Ms. Dortch:

AirCell Inc. ("AirCell") submits the attached response to the Telcordia Technologies technical paper filed by Verizon AirFone on June 3, 2004 in the above referenced docket. Telcordia attempts to fault the technical merits of a proposal submitted by AirCell, Inc. for sharing spectrum in the 800 MHz Air-Ground Radiotelephone Service (ATG Band). However, Telcordia's analysis of AirCell's proposal is nothing more than a thinly veiled effort by Verizon to distort AirCell's sharing proposal in order to support Verizon's continuing monopoly in the ATG Band.

A summary of the deficiencies in the Telcordia paper include:

(1) Telcordia assumes propagation losses that have no physical basis for both the forward and reverse ATG channels in order to support its conclusions. Specifically, Telcordia assumes that all forward and reverse channels suffer from fading, shadowing, and other losses of the order of 10 dB. While terrestrial cellular channels may suffer from multipath Rayleigh fading and shadowing and obstructions of this magnitude, this is not true for line of sight ATG propagation channels.

(2) Telcordia claims that AirCell has failed to consider the effects of base-to-base station interference, and states that this is a factor that will invalidate the reverse–duplex sharing of the spectrum. AirCell has specified that such interference be controlled by use of uptilted base station antennas and base station site spacing of 5-10 miles, depending upon terrain and antenna heights. Telcordia's limited analysis considers no antenna discrimination between sites (no uptilt) and free space

propagation losses. Since the analysis totally ignores the criteria specified by AirCell, the conclusions are entirely unjustified.

(3) By relying upon channel propagation and system implementation assumptions that are in error and/or unnecessarily pessimistic, Telcordia produces analyses of interference for flight scenarios which are also erroneous and which have lead them to erroneous conclusions. In particular, their introduction of an unjustified 10 dB path loss on ATG paths (but not on aircraft-aircraft paths), coupled with an artificial flight scenario, creates a 20 dB overstatement of aircraft-aircraft interference.

(4) Telcordia's analysis assumes that every aircraft (cargo, private, small or large passenger) will generate the same amount of voice/data traffic service as large passenger aircraft. This serves to overstate intersystem interference.

(5) Telcordia's analysis overstates the probability of interference from the US Navy AN/SPS-49 air search radar systems in nearby spectrum. We conclude that interference from AN/SPS-49 radar use in the 902-928 MHz band will be a low probability and will also be a localized event. Further, if and when such interference occurs, it is a problem that will impact both the normal and the reverse duplexed channel assignments at similar levels.

These deficiencies are discussed in detail in the attached paper prepared by AirCell and the recognized experts we asked to review the Telcordia paper. AirCell and our experts have years of experience with airborne and wireless systems and particular expertise in spectrum sharing systems. AirCell has been providing air-ground communications service to the aviation community for over six years using a system that shares 800 MHz cellular spectrum without causing interference. During the six years of AirCell's operation, not one instance of interference to ground cellular has been established.

Contrary to the conclusions in Telcordia's technical paper, AirCell is confident that its technical plan for the 800 MHz ATG Radiotelephone Service will accommodate competition and foster new and improved services for aviation consumers.

Sincerely,

/s/ William J. Gordon
William J. Gordon
VP, Regulatory Affairs, AirCell, Inc.

cc: Ed Thomas
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